

## AREA AND PRODUCTION OF OILSEEDS CROPS IN MAHARASHTRA WITH SPECIAL REFERANCE TO SANGLI DISTRICT

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**Abstract** :Agriculture plays a key role in the rural economy of India. It contributes nearly 17 percent in the total gross domestic product. On the oilseeds map of the world and India occupies a prominent position, both in regard to area and production. India is the 4<sup>th</sup> largest production of edible oil economy in the world and contributes about 10% of the world oilseeds production, 6-7% of the global production of vegetable oil, and nearly 7 percent of protein meal. Indian Oilseeds main fore crops Groundnut, Sunflower, Soybean and Castor seed.

This research paper examines agricultural progress in India with special reference oilseeds Crops. Areas under cultivation the trend of oilseeds crops also have been analyzed.

**KEYWORDS**: - Agriculture, Oilseeds Crops, Maharashtra and Sangli.

**Introduction**:-Agriculture plays a key role in the rural economy of India. It contributes nearly 17 percent in the total gross domestic product. Around two-third of the total work force is being engaged in agriculture sector and they are directly and indirectly depend on agriculture for livelihood. The planners did not realize the targeted growth rate of agriculture; it was varied only between 2 percent to 5 percent during last fifty years of planning. During the planning period agriculture production was highly influenced by natural calamities. After independence, the government has introduced several schemes and policies for the development of agriculture sector. A huge public investment has been taken place in the field of agriculture and irrigation during last 65 year. Indian agriculture has made considerable progress in respect of food crops and other crops in irrigated areas, particularly oilseeds, pulses, and coarse cereals. Therefore, after achieving self-sufficiency in food grains the government is specially focusing attention on these agricultural commodities. The oilseed sector has been an important area and production is increased in India.

On the oilseeds map of the world and India occupies a prominent position, both in regard to area and production. India is the 4<sup>th</sup> largest production of edible oil economy in the world and contributes about 10% of the world oilseeds production, 6-7% of the global production of vegetable oil, and nearly 7 percent of protein meal.

This sector also has an important place in the Indian agricultural sector covering an area of about 26.5 million hectares, with total production of over 29 million tons in the triennium ending 2011-12. This constitutes about 14.8 % of the gross cropped area in the country. The oilseeds accounted for about 9.8 % of the total value of output from agriculture in 2011-12. A wide range of oilseed crops is produced in different agro-climatic regions of the Indian country. Four main oilseeds namely, groundnut, sunflower, soybean and castor seed rapeseed-mustard accounted for over 88 per cent of total oilseeds output during the 2001 to 2015. Soybean is the most important crop in total oilseeds crops. Soybean crop maximum production mainly state Madhya Pradesh, Maharashtra, and Rajasthan accounting for more than 95 per cent of total production. Groundnut crop which was the largest oilseed crop in the 1990s, Groundnut crop is important oilseed with an average production on total oilseeds in India. Groundnut production higher than the in states Gujarat, Andhra Pradesh, Tamil Nadu, Rajasthan, Karnataka and Maharashtra with the combined share of about 91% in total groundnut production in the country.

➤ **Objectives of the Study:**

1. Area of oilseeds crops in Maharashtra and Sangli district.
2. Production of oilseeds crops in Maharashtra and Sangli district.
3. To study the change of oilseeds Crop between the periods from 2001 to 2014-2015.
4. To suggest measures for improvement if necessary.

➤ **Research Methodology**:- Any research if necessary to methodology this research use only secondary data has been collected from Books, Journals, Gazetteer, Agricultural epitomes, RBI Report, Crop reports published by the department of agriculture (2001 to 2014-15).

➤ **Limitation of the study**:- The major limitation of this research is that the present research is related to only Area and Production of oilseeds selected crops in India. Conclusion of this research may not be applicable to other area.

➤ **Data Analysis and Interpretation**:-

- A) Area and Production of Oilseeds Crops in Maharashtra.

## B) Area and Production of Oilseeds Crops in Sangli District.

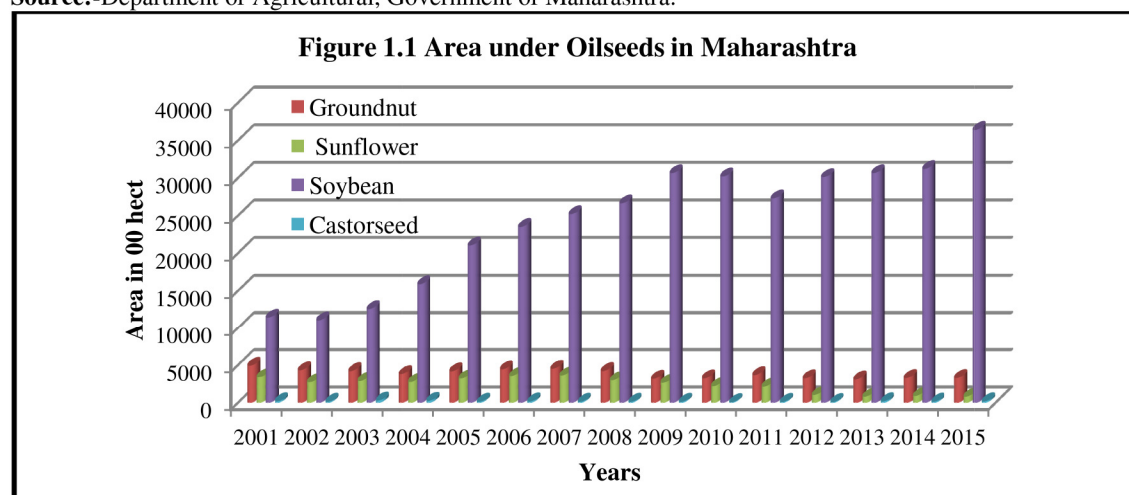
**A)Area and Production of Oilseeds Crops in Maharashtra :** In 2012-13 the highest production of Oilseeds has been recorded in the Goa States. It has followed by Haryana and Punjab. The Maharashtra stood at third place in oilseed production. On the contrary the States like Himachal Pradesh, Assam and Karnataka stood at the tail.

The careful observation of table 4.8 and figure 4.24 & 4.25 reveals that the area under Soybean crop and its production is always significant during the period 2001 to 2015. The share of Soybean in total area under Oilseeds was around 52 percent in 2001 which becomes around 85 percent in 2015. The production of Soybean was just 60 percent of the total Oilseeds production in 2001 which becomes 75 percent in 2015. It means that in the Oilseeds crops Soybean is a leading crop in the context of production as well as area under cultivation. The lowest production of Oilseeds has been observed in the years 2009 and 2010. In addition to this observation following major observations can be drawn

**Table 1.1**  
**Area and Production of Oilseeds in Maharashtra**

Years	Groundnut		Sunflower		Soybean		Castorseed	
	Area	Prod	Area	Prod	Area	Prod	Area	Prod
2001	4901	4696	3372	1753	11415	12662	181	43
2002	4294	4920	2714	1313	11049	13855	119	31
2003	4187	4501	2890	1426	12555	15760	297	68
2004	3788	4368	2755	1010	15891	22192	256	47
2005	4160	4590	3207	1666	21022	18924	123	34
2006	4413	4395	3536	2066	23468	25273	161	60
2007	4497	4038	3600	1978	25211	28916	119	40
2008	4194	5058	2990	2051	26636	39762	115	44
2009	3172	3515	2635	1552	30632	18399	108	27
2010	3219	3646	2197	1156	30191	21971	68	17
2011	3645	4701	2141	1313	27291	43158	98	41
2012	3228	3749	1027	614	30103	39692	81	35
2013	3082	3376	803	366	30639	46898	182	47
2014	3260	4165	896	539	31199	42726	138	51
2015	3265	3787	802	311	36402	18214	174	41
<b>Average</b>	<b>3820.33</b>	<b>4233.7</b>	<b>2371</b>	<b>1274.26</b>	<b>24246.9</b>	<b>27226.8</b>	<b>148</b>	<b>41.73</b>
<b>Std</b>	<b>592.99</b>	<b>527.8</b>	<b>1019.15</b>	<b>599.07</b>	<b>8104.7</b>	<b>11963.2</b>	<b>62.92</b>	<b>12.6</b>
<b>CV</b>	<b>15.52</b>	<b>12.467</b>	<b>42.98</b>	<b>47.01</b>	<b>33.42</b>	<b>43.93</b>	<b>42.51</b>	<b>30.2</b>
<b>CAGR</b>	<b>-0.03</b>	<b>-0.015</b>	<b>-0.09</b>	<b>-0.11</b>	<b>0.08</b>	<b>0.02</b>	<b>-0.002</b>	<b>-0.003</b>
<b>Max.</b>	<b>4901.00</b>	<b>5058</b>	<b>3600</b>	<b>2066</b>	<b>36402</b>	<b>46898</b>	<b>297</b>	<b>68</b>
<b>Min.</b>	<b>3082.00</b>	<b>3376</b>	<b>802</b>	<b>311</b>	<b>11049</b>	<b>12662</b>	<b>68</b>	<b>17</b>

Source:-Department of Agricultural, Government of Maharashtra.



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1. The average area under Groundnut and production of Groundnut during the period 2001 to 2015 was 3820.33 thousand hectare and 4233.7 thousand tons respectively. The compound annual growth rate of area under Groundnut crops and production was -0.03 and -0.015 percent respectively. The coefficient of variance of area under Groundnut crops and Groundnut production was 15.52 and 12.46 percent respectively. The maximum area under Groundnut crops and Groundnut production has been observed as 4901 thousand hectare and 5058 thousand tons respectively. Likewise the minimum area under Groundnut crops and Groundnut production were 3082.00 thousand hectare and 3376 thousand tons respectively during the study period. Hence in short it can be stated that the production of Groundnut is decreasing trend.
2. The average area under Sunflower and production of Sunflower during the period 2001 to 2015 was 2371 thousand hectare and 1274.26 thousand tons correspondingly. The compound annual growth rate of area under Sunflower crops and production was -0.09 and -0.11 percent respectively. The coefficient of variance of area under Sunflower crops and Sunflower production was 42.98 and 47.01 percent respectively. It means that production of Sunflower is unstable than area under Sunflower. The maximum area under Sunflower crops and Sunflower production has been observed as 3600 thousand hectare and 2066 thousand tons respectively. Likewise the minimum area under Sunflower crops and Sunflower production were 802 thousand hectare and 311 thousand tons respectively during the study period.
3. The average area under Castorseed and production of Castorseed during the period 2001 to 2015 was 148 thousand hectare and 41.73 thousand tons respectively. The compound annual growth rate of area under Castorseed crops and production was -0.002 and -0.003 percent respectively. The coefficient of variance of area under Castorseed crops and Castorseed production was 42.51 and 30.2 percent respectively. It means that production of Castorseed is unstable than area under Castorseed. The maximum area under Castorseed crops and Castorseed production has been observed as 297 thousand hectare and 68 thousand tons respectively. Likewise the minimum area under Castorseed crops and Castorseed production were 68 thousand hectare and 17 thousand tons respectively during the study period.

In short except Soybean other Oilseeds crops are having decreasing trend in both areas under cultivation and production context.

#### B. Area and Production of Oilseeds Crops in Sangli District.

The table 1.2 shows area and production of Oilseeds in Sangli District during the period 2001 to 2015.

**Table 1.2 Area and Production of Oilseeds in Sangli District**

Area in "00" Ha , Production in "00" Ton

Years	Groundnut		Sunflower		Soybean		Castorseed	
	Area	Prod	Area	Prod	Area	Prod	Area	Prod
2001	399	431	94	47	587	1549	1	1
2002	353	299	87	49	601	926	0	0
2003	373	266	88	39	619	1036	0	0
2004	169	120	49	9	408	801	0	0
2005	329	254	110	61	826	1501	1	6
2006	362	243	92	50	724	980	2	1
2007	369	211	94	47	608	899	2	1

2008	390	394	97	70	595	1279	0	0
2009	212	151	77	47	557	1199	1	0
2010	262	283	103	52	560	849	0	0
2011	290	374	77	42	573	1196	0	0
2012	244	222	34	17	598	999	0	0
2013	226	176	26	10	630	1006	6	2
2014	268	300	29	15	771	1596	15	5
2015	318	329	42	22	366	477	0	0
<b>Average</b>	<b>304.267</b>	<b>270.2</b>	<b>73.26</b>	<b>38.46</b>	<b>601.53</b>	<b>1086.2</b>	<b>1.86</b>	<b>1.06</b>
<b>Std</b>	<b>71.5247</b>	<b>88.554</b>	<b>28.96</b>	<b>19.12</b>	<b>117.4</b>	<b>305.35</b>	<b>3.96</b>	<b>1.9</b>
<b>CV</b>	<b>23.5072</b>	<b>32.774</b>	<b>39.52</b>	<b>49.72</b>	<b>19.51</b>	<b>28.11</b>	<b>212.23</b>	<b>178.81</b>
<b>CAGR</b>	<b>-0.01608</b>	<b>-0.019</b>	<b>-0.05</b>	<b>-0.05</b>	<b>-0.03</b>	<b>-0.08</b>	<b>-1</b>	<b>-1</b>
<b>Maxi</b>	<b>399</b>	<b>431</b>	<b>110</b>	<b>70</b>	<b>826</b>	<b>1596</b>	<b>15</b>	<b>6</b>
<b>Mini</b>	<b>169</b>	<b>120</b>	<b>26</b>	<b>9</b>	<b>366</b>	<b>477</b>	<b>0</b>	<b>0</b>

**Source:** - Department of Agricultural, Government of Maharashtra

Based on the table 4.14 following major observation can be drawn.

1. The average area under Groundnut and production of Groundnut during the period 2001 to 2015 was 304.26 thousand hectare and 270.2 thousand tons respectively. The compound annual growth rate of area under Groundnut crops and production was -0.01 and -0.019 percent correspondingly. The coefficient of variance of area under Groundnut crops and Groundnut production was 23.50 and 32.77 percent respectively. It means that production of Groundnut is unstable than area under Groundnut. The maximum area under Groundnut crops and Groundnut production has been observed as 399 thousand hectare and 431 thousand tons respectively. On the contrary lowest area under Groundnut crops and Groundnut production were 169 thousand hectare and 120 thousand tons respectively during the study period.
2. The average area under Sunflower and production of Sunflower during the period 2001 to 2015 was 73.26 thousand hectare and 38.46 thousand tons respectively. The compound annual growth rate of area under Sunflower crops and production was -0.05 and -0.05 percent correspondingly. The coefficient of variance of area under Sunflower crops and Sunflower production was 39.52 and 49.72 percent respectively. It means that production of Sunflower is unstable than area under Sunflower. The maximum area under Sunflower crops and Sunflower production has been observed as 110 thousand hectare and 70 thousand tons respectively. On the contrary lowest area under Sunflower crops and Sunflower production were 26 thousand hectare and 9 thousand tons respectively during the study period.
3. The average area under Soybean and production of Soybean during the period 2001 to 2015 was 601.53 thousand hectare and 1086.2 thousand tons respectively. The compound annual growth rate of area under Soybean crops and production was -0.03 and -0.08 percent correspondingly. The coefficient of variance of area under Soybean crops and Soybean production was 19.15 and 28.11 percent respectively. It means that production of Soybean is unstable than area under Soybean. The maximum area under Soybean crops and Soybean production has been observed as 826 thousand hectare and 1596 thousand tons respectively. On the contrary lowest area under Soybean crops and Soybean production were 366 thousand hectare and 477 thousand tons respectively during the study period.
4. The average area under Castorseed and production of Castorseed during the period 2001 to 2015 was 1.86 thousand hectare and 1.06 thousand tons respectively. The compound annual growth rate of area under Castorseed crops and production was -1 and -1 percent correspondingly. The coefficient of variance of area under Castorseed crops and Castorseed production was 212.23 and 178.81 percent respectively. It means that area under Castorseed is highly unstable than production of Castorseed. The maximum area under Castorseed crops and Castorseed production has been observed as 15 thousand hectare and 6 thousand tons respectively. On the contrary lowest area under Castorseed crops and Castorseed production were 0 thousand hectare and 0 thousand tons respectively during the study period.

In short it can be quoted that the production of Castorseed is very meager in the district and Soybean and Groundnut are the major Oilseeds crops in the district.

## CONCLUSIONS

1. The Maharashtra state average area under Groundnut and production of Groundnut during the period 2001 to 2015 was 3820.33 thousand hectare and 4233.7 thousand tons respectively. Hence in short it can be stated that the production of Groundnut is decreasing trend.

2. The Maharashtra state average area under Sunflower and production of Sunflower during the period 2001 to 2015 was 2371 thousand hectare and 1274.26 thousand tons correspondingly. It means that production of Sunflower is unstable than area under Sunflower.

3. The Maharashtra state average area under Soybean and production of Soybean during the period 2001 to 2015 was 24246.9 thousand hectare and 27226.8 thousand tons respectively. It means that production of Soybean is unstable than area under Soybean.

4. The Maharashtra state average area under Castorseed and production of Castorseed during the period 2001 to 2015 was 148 thousand hectare and 41.73 thousand tonnes respectively. It means that production of Castorseed is unstable than area under Castorseed.

In short except Soybean other Oilseeds crops are having decreasing trend in both areas under cultivation and production context.

5. The sangli district average area under Groundnut and production of Groundnut during the period 2001 to 2015 was 304.26 thousand hectare and 270.2 thousand tons respectively. It means that production of Groundnut is unstable than area under Groundnut.

6. The sangli district average area under Sunflower and production of Sunflower during the period 2001 to 2015 was 73.26 thousand hectare and 38.46 thousand tons respectively. It means that production of Sunflower is unstable than area under Sunflower.

7. The sangli district average area under Soybean and production of Soybean during the period 2001 to 2015 was 601.53 thousand hectare and 1086.2 thousand tons respectively. It means that production of Soybean is unstable than area under Soybean.

8. The sangli district average area under Castorseed and production of Castorseed during the period 2001 to 2015 was 1.86 thousand hectare and 1.06 thousand tons respectively. It means that area under Castorseed is highly unstable than production of Castorseed.

In short it can be quoted that the production of Castorseed is very meager in the district and Soybean and Groundnut are the major Oilseeds crops in the district.

## ➤ SUGGESTIONS

1. The district has a wide scope for milk production thus the cultivation of fodder crops needs to be increased.

2. The organizational finance to the cultivators is the matter of great concern in study region. Therefore it has been suggested that the financial access to the marginal and small farmers should be extended as much as possible level.

3. The average land holding size is very small in the study region, hence it has been suggested that to think about cooperative farming or joint farming so as cost of production may reduce and increase in productivity of the land.

4. The crop loan should be made available easily, timely and at the affordable cost to the farmers especially during the harvesting period.

5. The transportation system especially agricultural roads are needed to be developed from farm to district market. The agricultural roads are not well developed in the study region, so it has been suggested that agro roads should be developed in the district.

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